

# Fish Stock Sustainability Index (FSSI)

## 2008 Quarter 3 Update through September 30, 2008

### Overview

The FSSI is a performance measure for the sustainability of 230 U.S. fish stocks<sup>1</sup> selected for their importance to commercial and recreational fisheries. The FSSI will increase as overfishing is ended and stocks rebuild to the level that provides maximum sustainable yield.

### FSSI Scoring Method

The FSSI is calculated by assigning a score for each fish stock based on the five following criteria:

<u>Criteria</u>	<u>Points Awarded</u>
1. "Overfished" status is known	0.5
2. "Overfishing" status is known	0.5
3. Overfishing is not occurring (for stocks with known "overfishing" status)	1.0
4. Stock biomass is above the "overfished" level defined for the stock	1.0
5. Stock biomass is at or above 80% of the biomass that produces maximum sustainable yield ( $B_{MSY}$ ) <sup>2</sup> (this point is in addition to the point awarded for being above the "overfished" level)	1.0

The maximum score each stock may receive is 4. The value of the FSSI is the sum of all 230 individual stock scores. The maximum total FSSI score is 920, achieved if all 230 stocks were to each receive a score of 4.

### Current FSSI Score

**2008 Quarter 3 Score = 535** (July 1, 2008 to September 30, 2008)

The following table summarizes the current FSSI score and where additional points can be gained to raise the score in the future.

<u>Criteria</u>	<u># Stocks</u>	<u>Current Points</u>	<u>Total Points Possible</u>	<u>Actions that Can Increase the Score</u>	<u>Potential Points to Gain</u>
<b>1. "Overfished" status is known</b> Overfished: 45 Not Overfished: 123	<b>168</b>	<b>84</b>	<b>115</b>	Determine the "overfished" status for the remaining 62 stocks	<b>31</b>
<b>2. "Overfishing" status is known</b> Overfishing: 39 Not subject to overfishing: 143	<b>182</b>	<b>91</b>	<b>115</b>	Determine the "overfishing" status for the remaining 48 stocks	<b>24</b>
<b>3. Overfishing is not occurring</b> (for stocks with known "overfishing" status)	<b>143</b>	<b>143</b>	<b>230</b>	End overfishing on the 39 stocks subject to overfishing. Ensure the 48 stocks (see #2 above) are not subject to overfishing.	<b>87</b>
<b>4. Stock biomass is above the "overfished" level defined for the stock</b> (for stocks with a known "overfished" status and that are "not overfished")	<b>123</b>	<b>123</b>	<b>230</b>	Increase the biomass above the overfished level for the 45 overfished stocks. Ensure the biomass for the 62 stocks (see #1 above) is above the overfished level.	<b>108</b>
<b>5. Stock biomass is at or above 80% of <math>B_{MSY}</math></b> (this point is in addition to the point awarded for being above the "overfished" level, criteria #4)	<b>94</b>	<b>94</b>	<b>230</b>	For the 45 overfished stocks and the 28 stocks that are not overfished (but biomass is not at or above 80% of $B_{MSY}$ ), increase biomass to at or above 80% of $B_{MSY}$ . Ensure the biomass for the 62 stocks (see #1 above) is at or above 80% of $B_{MSY}$ .	<b>135</b>
<b>TOTAL</b>		<b>535</b>	<b>920</b>		<b>385</b>

<sup>1</sup> The majority of species are assessed as a single stock; however, there are a few that are assessed as a stock complex, which contain a group of species with similar geographic distribution, co-occurrence in fisheries, and life history.

<sup>2</sup> Stocks rebuilding from a previously overfished condition are not awarded the fourth point until they reach  $B_{MSY}$ , as mandated by the Magnuson-Stevens Act. After they have been fully rebuilt, they may fluctuate within the 80% parameter and retain the score of 4 like the other non-rebuilding stocks.

## Summary of Stock Status Determination Changes from July 1, 2008 through September 30, 2008

**NOTE: The results of the Groundfish Assessment Review Meeting III (GARM III, published September 2008) are not included in this quarterly update. The new reference points must be adopted through an amendment to the Northeast Multispecies FMP before the results can be reported. The unofficial results of the GARM are footnoted, along with the official current status in the stock status table. As soon as the FMP is amended, the results will be incorporated in the quarterly update.**

### Overview of overfished status of FSSI stocks through September 30, 2008

- 168 stocks or stock complexes are known with respect to their overfished status. Of these:
  - 123 stocks or stock complexes are not overfished (3 of these stocks are approaching an overfished condition).
  - 45 stocks or stock complexes are overfished.
- 62 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

### Overview of overfishing status of FSSI stocks through September 30, 2008

- 182 stocks or stock complexes are known with respect to their overfishing status. Of these:
  - 143 stocks or stock complexes are not subject to overfishing.
  - 39 stocks or stock complexes have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 48 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

### Summary of Overfishing and Overfished Changes of FSSI Stocks

<u>Stock</u>	<u>Region</u>	<u>Previous Status</u>	<u>Current Status</u>	<u>Previous Score</u>	<u>Current Score</u>
Bluefish – Atlantic Coast	NE	Not Overfished – rebuilding	Rebuilt	3	4
Summer Flounder – Mid-Atlantic Coast	NE	Subject to Overfishing Overfished – rebuilding	Not Subject to Overfishing Not Overfished – rebuilding	1	3
TOTAL FSSI SCORE				532	535

## Overview of overfishing status of non-FSSI stocks through September 30, 2008

- 62<sup>3</sup> stocks or stock complexes are known with respect to their overfishing status. Of these:
  - 60 stocks or stock complexes are not subject to overfishing.
  - 2 stocks have a fishing mortality rate that exceeds the overfishing threshold (i.e., is subject to overfishing).
- 240 stocks or stock complexes have overfishing thresholds not defined or applicable, or are unknown with respect to their overfishing status.

## Overview of overfished status of non-FSSI stocks through September 30, 2008

- 24<sup>3</sup> stocks or stock complexes are known with respect to their overfished status. Of these:
  - 23 stocks or stock complexes are not overfished (2 of these stocks are approaching an overfished condition).
  - 1 stock is overfished.
- 278 stocks or stock complexes have overfished thresholds not defined or applicable, or are unknown with respect to their overfished status.

FSSI stock status updates are posted quarterly at:

<http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm#07>

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<sup>3</sup> This number includes Pacific halibut, which is managed by the International Pacific Halibut Commission.